

## **Introduction**

The primary objective of this analysis is to deconstruct and quantify the sales performance of Morrisons Supermarket over the tracked period (January to August) using the provided dashboard visualization. The goal is to provide actionable strategic insights to management by identifying top-performing categories, regions, and payment methods, as well as critical periods of sales decline, to optimize inventory, marketing spend, and operational focus for future quarters.

## **Story Of The Data**

The data is derived from the Morrisons Supermarket Performance Analysis dashboard, covering an eight-month period (January to August). It is summarized, aggregated data, not transactional. Key performance variables include:

1. Sales Trend (Monthly Revenue)
2. Revenue by Product Category
3. Quantity Sold by Top Product
4. Revenue by Region (Asia, Europe, North America)
5. Revenue by Payment Method (Credit Card, Debit Card, PayPal)

A significant limitation is the absence of year-over-year (YoY) or quarter-over-quarter (QoQ) comparative data, preventing the assessment of long-term growth or trend stability.

## **Data Splitting And Preprocessing**

The data presented is already processed and aggregated for dashboard consumption.

1. Total Revenue (Dependent Variable): The sum of monthly sales from January to August is \$76,512 (\$14,548 + \$10,803 + \$12,849 + \$12,452 + \$8,455 + \$7,385 + \$6,797 + \$7,278).
2. Independent Variables: Month, Region, Product Category, and Payment Method.
3. Industry Context: A Retail/Supermarket model, focusing on sales performance across diverse product categories like Electronics, Home Appliances, and Clothing.

## Pre Analysis And In-Analysis

The initial analysis reveals several high-impact data points:

1. Leading Month: January leads with the highest monthly sales at \$14,548.
2. Sales Trend: A clear downward trend is observed, with a sharp drop after the April peak, reaching a low in July (\$6,797).
3. Best Region (by Revenue): North America leads with a revenue of \$36,844.
4. Dominant Product Category (by Revenue): Electronics far surpasses all others, generating \$34,982.
5. Top Payment Method (by Revenue): Credit Card dominates, accounting for \$51,171 in revenue.
6. Top Product (by Quantity): Hanes ComfortSoft T-Shirt is the highest volume seller (10 units).

7. Top Product (by Revenue): Canon EOS R3 Camera is the highest value seller (\$3,900).

## Strategic Insight

The analysis highlights a significant **revenue concentration** in three key areas:

1. **Geographic Concentration:** North America (\$36,844) accounts for nearly half of the total revenue, while Asia (\$21,268) and Europe (\$18,392) lag significantly.

**Product Concentration:** Electronics (\$34,982) is the primary revenue driver, suggesting the supermarket's high-value sales are reliant on this category.

**Payment Method Concentration:** Reliance on Credit Card (\$51,171) is extremely high, presenting a single point of failure risk if the preferred payment gateway or associated fees change.

The most critical operational challenge is the **severe and prolonged sales decline** from April (\$12,452) to July (\$6,797), which requires immediate investigation into seasonal factors, marketing campaigns, or inventory issues.

## Post Analysis And Insights

The initial insights are solidified by the visualizations:

- **High-Value vs. High-Volume:** While **Hanes T-Shirts** lead in volume, **Canon Camera** and high-end electronics drive revenue. This suggests the business is a hybrid model: high-volume, low-margin (Clothing/Books) and low-volume, high-margin (Electronics).
- **Underperforming Categories:** **Beauty Products** (\$2,622) and **Books** (\$1,862) are the lowest performers by revenue, indicating a possible misallocation of shelf space or marketing effort in these departments.
- **Regional Investment Imbalance:** The substantial revenue lead of North America (\$36,844) compared to Europe (\$18,392) suggests the need to apply successful North American strategies to the European market.

## Visualization

The dashboard effectively uses key visuals:

- **Line Chart (Monthly Sales Analysis):** Clearly demonstrates the severe sales volatility and the downward trend post-April.
- **Bar Chart (Product Category by Revenue):** Visually emphasizes the overwhelming dominance of Electronics, followed by Home Appliances and Sports.
- **Pie Chart (Payment Method Analysis):** Immediately highlights the over-reliance on the Credit Card payment method.

## **Recommendation And Observation**

The following strategic actions are recommended to address the identified risks and capitalize on growth opportunities:

- **Address Sales Volatility:** An Immediate Root Cause Analysis (RCA) must be conducted to investigate the factors driving the steep sales decline from April to July. This is crucial to prevent the recurrence of the \$5,655 sales drop and stabilize quarterly revenue.
- **Geographic Replication Strategy:** Conduct a deep dive into successful sales and marketing campaigns, product mix, and regional leadership practices in North America and implement them in the lower-performing Europe and Asia markets. The goal is to mitigate reliance on a single region.
- **Optimize Product Portfolio:** Review the profitability of the weakest revenue categories, Books (\$1,862) and Beauty Products (\$2,622). Consider reducing inventory or implementing targeted high-margin promotions for these items, allowing for the reallocation of shelf space and marketing budget to proven high-revenue drivers (Electronics, Home Appliances).
- **Payment Risk Mitigation:** Implement a campaign to encourage the use of secondary payment methods, such as offering small discounts or loyalty points for customers who use Debit Card or PayPal. This will reduce the

single point of failure risk associated with the extreme reliance on **Credit Card** payments (\$51,171).

- **Leverage High-Value Products:** Ensure top revenue generators like the **Canon EOS R3 Camera** and **LG OLED TV** are adequately stocked and featured in marketing campaigns, as the high-ticket items are responsible for a large portion of the overall revenue.

## Conclusion

Morrisons' performance is defined by strong concentration in the Electronics category and the North America region, alongside significant sales volatility post-April. Future strategy must focus on mitigating the sharp mid-year sales decline and replicating the success of the high-performing regions and high-value product categories to ensure stable, profitable growth.

## Reference And Appendices

**References:** Dataset from Kaggle.com and Microsoft Excel Documentation.

**Appendices:** Key aggregated data points summarized from the dashboard:

- **Total Revenue (Jan-Aug):** \$76,512
- **Top Region:** North America (\$36,844)
- **Top Category:** Electronics (\$34,982)

- **Sales Low Point:** July (\$6,797)
- **Top Payment Method:** Credit Card (\$51,17